



TFW

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application No.	10/822,034
	Filing Date	April 8, 2004
	First Named Inventor	Alok Kumar
	Art Unit	2881
	Examiner Name	Not assigned
Total Number of Pages in This Submission	Attorney Docket Number	42P17967

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Response  <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input checked="" type="checkbox"/> Information Disclosure Statement  <input checked="" type="checkbox"/> PTO/SB/08  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/Incomplete Application  <input type="checkbox"/> Basic Filing Fee <input type="checkbox"/> Declaration/POA  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">Return Receipt Postcard All cited Non-Patent References</div>
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Paul A. Mendonsa, Reg. No. 42,879  BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Signature	
Date	December 31, 2004

CERTIFICATE OF MAILING/TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.			
Typed or printed name		Rachael L. Brown	
Signature		Date	December 31, 2004



# FEE TRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$)

## Complete if Known

Application Number	10/822,034
Filing Date	April 8, 2004
First Named Inventor	Alok Kumar
Examiner Name	Not assigned
Art Unit	2881
Attorney Docket No.	42P17967

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☒ None ☐ Other (please identify): \_\_\_\_\_

☐ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below

☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20. ☐ Credit any overpayments

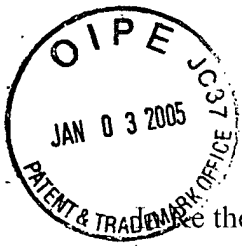
## FEE CALCULATION

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
2053	130	2053	130	Non-English specification	
1251	120	2251	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1,020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1,080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	
1403	1,000	2403	500	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
1809	790	1809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	
Other fee (specify) _____					
SUBTOTAL (2)					(\$)

## SUBMITTED BY

## Complete (if applicable)

Name (Print/Type)	Paul A. Mendonsa	Registration No. (Attorney/Agent)	42,879	Telephone	(503) 439-8778
Signature		Date	12/31/04		



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re the Application of:

ALOK KUMAR, ET AL.

Application No.: 10/822,034

Filed: April 8, 2004

For: **APPARATUS AND METHOD FOR TWO-STAGE  
PACKET CLASSIFICATION USING MOST  
SPECIFIC FILTER MATCHING AND  
TRANSPORT LEVEL SHARING**

Art Group: 2881

Examiner: Not assigned

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In accordance with the duty of disclosure, enclosed is a copy of IDS Citation Form PTO/SB/08 or PTO-1449, together with copies of the documents cited on that form, except for copies not required to be submitted (e.g., copies of U.S. patents and U.S. published patent applications need not be enclosed). This IDS and IDS Citation Form are being submitted before the mailing of a first Office Action. It is respectfully requested that the cited references be considered and that the enclosed copy of PTO/SB/08 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s).

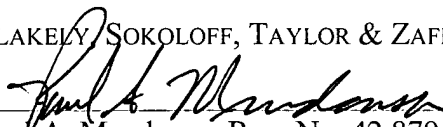
The submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made in the subject application and is not to be construed as an admission that the information cited in this statement is material to patentability.

Please charge any fees due to Deposit Account 02-2666. A duplicate copy of the Fee Transmittal (PTO/SB/17) is enclosed for this purpose.

Respectfully submitted,

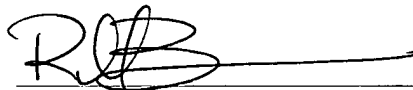
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: December 31, 2004

  
Paul A. Mendonsa, Reg. No. 42,879

12400 Wilshire Boulevard, 7th Floor  
Los Angeles, CA 90025  
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**Rachael L. Brown**

12-31-04

**Date**



*(use as many sheets as necessary)*

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U.S. PATENT DOCUMENTS

## FOREIGN PATENT DOCUMENTS

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Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>	
				Application Number	10/822,034
Sheet 2 of 4				Filing Date	April 8, 2004
				First Named Inventor	Alok Kumar
				Art Unit	2881
				Examiner Name	Not assigned
				Attorney Docket Number	42P17967

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
	14	M.E. KOUNAVIS, ET AL., "DIRECTIONS IN PACKET CLASSIFICATION FOR NETWORK PROCESSORS", Second on Network Processors (NP2), Anaheim, CA, February, 2003, pp 1-10		
	15	P.F. TSUCHIYA, "A SEARCH ALGORITHM FOR TABLE ENTRIES WITH NON-CONTIGUOUS WILDCARDING", Bellcore, 1991, 9 pgs.		
	16	DEGERMARK, ET AL., "SMALL FORWARDING TABLES FOR FAST ROUTING LOOKUPS", Computer Communication Review, acm sigcomm, Vol. 27, No. 4, Oct. 1997, 16 pgs.		
	17	SHAFAI, ET AL., "FULLY PARALLEL 30-MHz, 2.5Mb CAM", IEEE Journal of Solid-State Circuits, Vol. 33, No. 11, November 1998, 9. pgs.		
	18	SRINIVASAN, ET AL., "FAST AND SCALABLE LAYER FOUR SWITCHING", Computer Communication Review, acm sigcomm, Vol. 28, No. 4, Oct. 1998, 14 pgs.		
	19	LAKSHMAN, ET AL., "HIGH-SPEED POLICY-BASED PACKET FORWARDING USING EFFICIENT MULTI-DIMENSIONAL RANGE MATCHING", Computer Communication Review, acm sigcomm, Vol. 28, No. 4, October 1998, 14pgs.		
	20	BUDDHIKOT, ET AL., "SPACE DECOMPOSITION TECHNIQUES FOR FST LAYER-4 SWITCHING", IEEE Com-Soc TC on Gigabit Networking Sixth Intl. Workshop on Protocols for High-Speed Networks (PñHSN 99), 1999, 12 pgs.		

Examiner Signature	Date Considered
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\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Applicant's unique citation designation number:²Applicant is to place a check mark here if English language Translation is attached.

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Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
	21	GUTPA, ET AL., "PACKET CLASSIFICATION ON MULTIPLE FIELDS", Computer Communication Review, acm sigcomm, Vol. 29, No. 4, October 1999, 16 pgs.		
	22	SRINIVASAN, ET AL., "PACKET CLASSIFICATION USING TUPLE SPACE SEARCH" Computer Communication Review, acm sigcomm, Vol. 29, No. 4, October 1999, 14 pgs.		
	23	GUPTA, ET AL., "CLASSIFYING PACKETS WITH HEIRARCHICAL INTELLIGENT CUTTINGS", IEEE Micro Chips, Systems Software, and Applications, Jan/Feb. 2000, 10 pgs.		
	24	HARI, ET AL. "DETECTING AND RESOLVING PACKET FILTER CONFLICTS", IEEE Infocom 2000, The Conference on Computer Communications, Vol. 3, 12 pgs.		
	25	FELDMAN, ET AL., ""TRADEOFFS FOR PACKET CLASSIFICATION", IEEE Infocom 2000, The Conference on Computer Communications, Vol. 3, 12 pgs.		
	26	BABOESCU, ET AL., "SCALABLE PACKET CLASSIFICATION", Computer Communication Review, acm sigcomm, Vol. 31, No. 4, October 2001, 14 pgs.		
	27	PRAKASH, ET AL., "OC-3072 PACKET CLASSIFICATION USING BDDs AND PIPELINED SRAMs" HOT Interconnects 9, Symposium on High Performance Interconnects, IEEE Computer Society, 2001, 8 pgs.		

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

Sheet 4 of 4

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	28	GUTPA, ET AL., "ALGORITHMS FOR PACKET CLASSIFICATION", IEEE Network, The Magazine of Global Internetworking, March/April 2001, Vol. 15, No. 2, 11 pgs.	
	29	BABOESCU, ET AL., "PACKET CLASSIFICATION FOR CORE ROUTERS: IS THERE AN ALTERNATIVE TO CAMs?", IEEE Infocom 2003, 11 pgs.	

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